

Bartlett Regional Hospital

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January 30, 2006

Project Name: Pharmacy Safe for Juneau Recovery Hospital (JRH) &
Radiology Unit for Dahl Memorial Clinic (Skagway)

Agency: Bartlett Regional Hospital
Grant#: 06-4-C-4896

Close-out for Radiology Unit for Dahl Memorial Clinic

(Note: Close-out for Pharmacy Safe for JRH was completed in April 2004)

Background: Dahl Memorial Clinic had obsolete, poorly functioning radiology equipment, which was a safety concern due to the high rates of radiation necessary to obtain a readable x-ray image. Simply replacing outdated equipment was not an option since the radiology room was too small to accommodate the newer, larger piece of equipment; and the antiquated electrical system was inadequate and did not meet safety requirements for handling the updated equipment. Although a new clinic is in the conceptual planning stage, the option of waiting several years to install new equipment in a new facility was not an option due to the immediate need for safe radiology services. Therefore, the original plan was developed to install new radiology equipment in remodeled space with an upgraded electrical system to provide modern, safe radiology services to the community of Skagway. Also part of the original plan was to install tele-radiology equipment, which would enable the digital transmission of radiology images to Juneau for same-day reading by a Board-certified Radiologist, rather than the several day process of sending a physical copy of the film to Juneau by courier.

Activities: After discovery of asbestos in the wall to be removed for the new equipment, it was decided to remodel a newer portion of the existing building. When the only bid for the remodel came in excessively high, a third and final approach was to purchase a modular building to house the new radiology equipment. The modular unit was joined to the existing clinic to provide easy access for patients and staff, and provides appropriate lead-shielding and an adequate electrical system to support the new equipment. The new general radiology equipment was installed by representatives of the equipment manufacturer, General Electric.

The tele-radiology equipment was removed from this grant after funding was obtained from the Rasmuson Foundation for this purpose. This equipment has also been installed. Our cost-share was met through the purchase of the PACS radiology equipment located at Bartlett Regional Hospital. This equipment has the capability to receive the digital images from the tele-radiology equipment located in Skagway, which interfaces with the general radiology equipment provided under this grant.

Cost Containment: Due to the possibility of a new clinic in 3-4 years, but facing the immediate need for facility upgrades, our goal was to provide safe and effective radiology services during the

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interim but keep costs as low as possible. As we faced various hurdles along the way, it was necessary to come up with creative solutions to keep this project within budget. The final solution of purchasing a modular building turned out to be much less expensive than remodeling existing areas of the clinic. Furthermore, the City of Skagway stepped in to install the modular, which consisted of site work, foundation work, and construction connecting the modular to the existing clinic. The use of City employees saved money over hiring the project out to individual contractors.

The radiology equipment was surface-mounted to allow ease in movement once a permanent new clinic is built. This will save time and money in the future. In addition, the modular building may be moved or re-used once the new clinic is built.

Additional funding (\$106,000) for the tele-radiology equipment was received from the Rasmuson Foundation. As facility costs increased, this additional grant allowed us to purchase the equipment according to our original goals.

Final expenses for the grant are listed below. Please note that the JRH pharmacy safe portion of this grant has been closed out; however I have included it here for clarification in closing out the entire grant.

Dahl Memorial radiology project

Diagnostic x-ray equipment:	\$ 46,997.33
Modular building/on-site construction:	143,078.34
PACS radiology	<u>185,953.00</u>
Subtotal	\$376,028.67

JRC/JRH pharmacy safe project

JRC/JRH safe	\$ 3,039.85
Related equipment /installation	3,685.26
Construction	<u>8,310.12</u>
Subtotal	\$ 15,035.23

Total grant **\$391,063.90**

Please see attached spreadsheet showing breakdown of project expenses.

Project Outcome: After a long wait, the project has come to fruition. Our goals of providing safe and modern radiology services to the residents of Skagway have been met. The new equipment is installed in the new modular unit, which is joined to the existing clinic for easy access and the comfort of patients and staff.

Problems Encountered: The original plan for remodeling consisted of simply removing a wall between two adjoining rooms to make room for the new, larger radiology equipment, and updating the electrical system. Our first problem came with the discovery of asbestos in the walls of the portion of the clinic to be remodeled. Asbestos abatement was not cost-effective so we decided to remodel a newer portion of the clinic, which was asbestos-free but also required more extensive changes.

This second plan brought in architects and engineers to provide building plans and estimates of the remodel project. It was difficult to arrange site visits, and delays were frequent as we dealt with inclement weather interrupting trips to Skagway and the resulting schedule changes. This project reached a roadblock when there was only one bidder and the actual bid came in \$66,000 higher than the architect's estimate of \$120,000. Our initial thought in handling this challenge was to obtain an extension and re-bid the project with a longer construction period.

Upon reconsideration and due to the high costs of construction and the difficulty in finding contractors in Skagway, the decision was made to order a modular unit, which was built specifically for the radiology equipment by G.E. Modular Space, a subsidiary of General Electric. This solution had the advantage of providing a radiology room for less money than the price of remodeling and could be installed quickly without being dependent on available contractors. The City of Skagway Public Works Department was able to perform the site work, foundation work and the construction necessary to join the modular to the clinic. Furthermore, the modular unit may be moved or reused after the eventual construction of the planned new clinic in Skagway. Unfortunately, the architect and engineering fees for the remodeled space turned out to be an extra expense since the modular was used instead; however, best decisions were made at the time with the information available.

Conclusions and Recommendations: The modular unit worked out very well. It makes for a very nice radiology room to house the brand new radiology equipment. It is rewarding to have this project complete, especially after encountering numerous problems, which forced us to change direction several times. Bartlett Regional Hospital, Dahl Memorial Clinic, and the City of Skagway worked well together to come up with creative solutions to the continued problems and were persistent at seeing this project through to completion. The Rasmuson Foundation enabled the purchase of the teleradiology equipment, which will complement the radiology equipment purchased under this grant. We appreciate the funding provided by the Denali Commission to improve healthcare for the community of Skagway. It was very helpful to have the Denali Commission's understanding of our many changes and their approval of several budget revisions, as well as the extension, which gave us adequate time to complete this project with the necessary changes. The numerous partners involved in this project have made this project a success, and the community of Skagway has significantly increased the safety and quality of radiology services.

Attachments:

"Certificate of Appreciation"

Spreadsheet showing breakdown of project expenses

Please note that photos have been included with quarterly reports.

Submitted by:

JoAnne Craig

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